

# NATIONAL WEATHER SERVICE WESTERN REGION SALT LAKE CITY, UTAH



## **MARCH 5, 2002**

## REGIONAL DIRECTOR

NWS Web Image Completed: Congratulations to all Western Region Webmasters for successfully adopting the new NWS Web image. The result of this huge effort is that all NWS offices now have the same look and feel on their welcome pages, but each office still has individualized information. We are now providing customers with what they want via the Web in a manner which can be easily accessed by all. The idea was originally a Western Region concept in 1999 led by David Zaff. Michael Hudson, now the WCM at Pleasant Hill, MO, picked it up as a Senior Leadership Potential Program (SLPP) project where it caught the interest of NWSH. Matt Strahan of SRH is the current leader of the NWS Web Image Team, and tasked with implementing the design throughout the NWS. Western Region offices were deeply involved at several points of the project, particularly during its initial and latest stages. Special thanks go to all the office Webmasters for their hard work, effort, and patience needed to make this project a success. Without the help of everyone involved, we would not have met our deadline or achieved such good results. Western Region's input has made a significant positive impact to the overall look and feel of the NWS Web image.

## **DEPUTY REGIONAL DIRECTOR**

<u>Weather Support Group Nails Their Forecasts...Now Half Way Through the 2002</u>
<u>Games</u>: The Weather Support Group, a partnership between the National Weather Service, KSL Television (NBC affiliate in Salt Lake City), and the University of Utah completed the first phase of weather support for the 2002 Olympic Winter Games. Accolades have been received from Olympic officials, venue managers, news crews, security interests and others about the excellent forecasts provided throughout the first half of the Olympic Winter Games.

At the start of the XIX Olympic Winter Games, held in Northern Utah during February 8-24, the collaborative weather team experienced many days where they knew the outdoor venue competition events would either be delayed or postponed based on their forecasts.

The forecasts for the opening and closing ceremonies highlight the team's success. Strong winds blowing before the opening ceremony would have to calm so the elaborate puppets could be used. Under intense pressure, the team said the winds would die down in time and 30 minutes before the ceremony commenced, they did. The closing ceremony's million dollars of fireworks were threatened by high winds approaching the area. The forecast team told the officials they had to get the fireworks off by 9:00 p.m.; the show ended a little after 9:00 p.m. and less than 10 minutes later the high winds reached the stadium. These

critical forecasts had no room for error and is a true credit to all of those who worked at the National Weather Service, KSL Television, and the University of Utah.

At least twice each day, teleconferences are held with the meteorologists representing the private sector, university, military and other Federal agencies. One of the five augmenting NWS meteorologists brought in to assist the NWS Forecast Office team in Salt Lake is responsible for leading these discussions. Topics during the Winter Games ranged from the private sector's forecasts at each of the five outdoor venues to the weather-related impacts on public safety and nowcasts for the valley locations.

Many members of the NWS Western Region Headquarters staff have also been instrumental in the Weather Support Group's success. From installing and maintaining the FX-net to briefing media at one of the press centers, this has been a true gold medal experience for everyone involved.

The entire staff at the WFO and Colorado Basin River Forecast Center have been gracious hosts to the media who have come in from U.S. and international media. Reporters were enthused to tell the story about the weather impacts on the Games and came to the NWS Forecast Office for on-camera interviews.

If you have not already done so, I encourage you and your staff to send your best wishes to the Weather Support Group via the NWSH Office of Communications' special web page. You can add your best wishes to our Olympic team by sending a note to <a href="https://www.nws.communications">NWS.Olympic.Team@noaa.gov</a>. All members of the Weather Support Group have represented our agency well and I know they will continue this high level of professionalism during these second Games.

Mark Eubank, and head of the KSL team, wrote the following note to several of the team members after the first set of Games:

Working together in the Olympic Weather Partnership has been one of the most rewarding things I have ever done as a meteorologist. For 37 years my weather career has all been in the private sector but working as a team with the National Weather Service and the University of Utah has been extremely gratifying as well as eye opening.

When I first heard the proposal to have academia, government and the private sector all work together in a common weather forecasting project I was slightly skeptical on how well it could work. As it turned out, that combination yielded greater results than the sum of its parts. Each group had very unique contributions and each group enhanced the others.

The meteorological tools used by the NWS are excellent. The AWIPS work stations are extremely beneficial and are very user friendly. The development of FX-Net to allow a remote location, like an Olympic venue, to have almost everything AWIPS has, is spectacular and a wonderful advancement. Not only wonderful, but crucial in making accurate, detailed forecasts at those remote sites. The government staffs from the Regional level to the forecast office were exceptional in their performance and contributions.

The University of Utah's development of the MM5 computer model on a 4-km grid has proved to be superior to anything we have ever seen in the Intermountain West. The installation of many remote weather stations and the integration of that data into the

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modeling have given amazing results. The current staff and leadership in the university's meteorology department are unparalleled.

Having superior weather models, and having superior tools is only part of the challenge of successful weather forecasts. Disseminating the forecasts in a way the customers can understand and use is vital. The private sector team with their many years of customer service skills had great success.

Individual meteorologists were hand picked to match their skills to the tasks. Retired meteorologists were also enlisted to utilize their wealth of experience.

However, the fact that all three groups had the appropriate tools, skills and expertise still did not ensure success in this project. It was critical for all the elements and parts to integrate seamlessly. I was amazed and delighted at the level and spirt of cooperation that was manifest. Every group, without exception, gave 100% effort in their individual tasks and then functioned like a true team sharing, giving and helping one another. One member of the private sector who is hard to impress was heard to say, "this is one big professional team!" I believe the integration happened because individual personalities clicked just right. It was a conscious effort by each person to cooperate for success.

This project was an Olympic effort with Olympic results and could be used as a model for the future.

Mark Eubank

Weather Support Group Ready to Support Paralympics: The Weather Support Group, a partnership between the National Weather Service, KSL Television, and the University of Utah will begin support of the 2002 Paralympic Winter Games beginning on March 7. The team will provide the same level of service as was done during the Olympics. However, instead of five outdoor venues there will only be two and there is only one indoor venue in the Salt Lake Valley. About 500 athletes will participate in the Games compared to 2,500 in the Olympics. Nearly 1,000 media are expected to cover the Games that will end on March 16. This is the first time in Olympic history that a partnership between government, private sector, and academia has been used to provide weather support. The partnership was very successful during the Olympics, and we expect close cooperation during the Paralympics.

### **METEOROLOGICAL SERVICES DIVISION**

STATEMENT OF THE WEEK: This week's statement of the week is a short-term forecast issued by lead forecaster Joe Nemeth of WFO Las Vegas. Joe's NOW highlighted the short-term aspect of the forecast in the first part of the product, included specific times, e.g., 4 AM rather than general terms such as later tonight, and included mention of current and past weather in the latter part of the forecast. Good work, Joe!

FPUS75 KVEF 011005 NOWLAS

SHORT TERM FORECAST NATIONAL WEATHER SERVICE LAS VEGAS NV 205 AM PST FRI MAR 1 2002

NVZ020-011200-LAS VEGAS VALLEY-

...NOW...

NORTH WINDS OF 20 TO 30 MPH WITH GUSTS TO 45 MPH WILL CONTINUE ACROSS THE LAS VEGAS VALLEY THROUGH 4 AM PST. THE GUSTY WINDS WILL CONTINUE TO CAUSE AREAS OF BLOWING DUST AND SAND WHICH WILL REDUCE VISIBILITIES TO BETWEEN 3 AND 5 MILES AT TIMES. EARLIER...WINDS GUSTING TO AROUND 50 MPH HAD CAUSED DUST AND SAND TO LOWER THE VISIBILITY TO AROUND ½ OF A MILE OVER PARTS THE VALLEY. SINCE MIDNIGHT THE PEAK WIND GUST AT MCCARRAN INTERNATIONAL AIRPORT HAS BEEN 51 MPH. \$\$

NEMETH

Watch Warning Advisory (WWA) Working Group Meeting: Carl Gorski (MSD) and Matt Jackson (Lead Forecaster TFX) attended a national WWA Working Group Meeting at NWSH on February 20 and 21. The Working Group prioritized future WWA capabilities from input provided by the field offices. Most of the Western Region Field Office suggestions for improving WWA were ranked in the high priority category by the working group. We could see many of these recommended changes showing up later this year. Several presentations and the list of the priorities from the meeting will be forwarded to the field.

**E-Warn Test**: Nine Western Region WFOs have begun testing E-Warn in their CWAs. E-Warn, the dissemination of warning headlines to NWS partners via email, was developed by WFO Salt Lake City's WCM Dave Toronto. Dave has been conducting a limited test with emergency managers in Utah for about the past 15 months and gave a presentation on E-Warn at the International Association of Emergency Managers annual meeting last November. Due to the interest in E-Warn by the emergency managers, WCMs asked to expand the test to other parts of Western Region. Dave has provided the test sites with documentation and script files to implement E-Warn. The test sites are: Great Falls; Billings; Missoula; Glasgow; Pocatello; Portland; Medford; Monterey; and San Diego.

Spring Outlook Will Focus on Drought: The March press briefing will occur on March 14 this year, and the main focus will be on drought. The rationale behind the early date of the press briefing, is that NCEP (CPC) will also be releasing their climate, drought and El Nino products on the same day. With the ongoing drought throughout the country, and the heightened interest in drought by the public, this will inevitably get wide media attention. Western Region will focus on the areas most seriously impacted with drought currently, like Montana and eastern Idaho. Other politically sensitive areas will be mentioned as well. Unless something drastic happens in the next two weeks, there is no plan to concentrate

on flood potential, other than mention it in the context of being low as a result of dry conditions.

### HYDROLOGICAL SERVICES DIVISION

Advanced Hydrologic Prediction Services (AHPS) Activities: Western Region offices are involved with AHPS on several fronts. WFO Great Falls began to post graphical Extended Streamflow Prediction (ESP) products for ten locations on the upper Missouri River Basin on their Web site in January. WFOs Glasgow and Billings are preparing to post similar products for 13 locations in the Yellowstone River Basin beginning in March. These products are being produced by the Missouri Basin River Forecast Center.

The River Forecast Centers (RFC) located in Western Region are working with WRH/HSD to prepare AHPS proposals for FY03. The Western Region proposals will address several areas where development effort is needed to improve hydrologic services. These areas include: merging meteorological storm forecasts with tidal forecasts for input to hydrologic models, improving the use of climatological forecasts in hydrologic forecasts, and developing tools to produce short range ensemble hydrologic forecasts. The RFCs will also be proposing to begin operational implementation of an interactive method for customers to access ESP forecast information.

**FFMP in AWIPS 5.1.2 - Update**: The Flash Flood Monitoring and Prediction (FFMP) application, with the AMBER utility, was delivered in AWIPS 5.1.2. In order for FFMP to work, offices will need the high resolution basin files to be placed on AWIPS, and the DHR product MUST be added to all operational RPS lists. NSSL is considerably behind schedule in delineating the basins for FFMP, especially in Western Region. However, many of the basin files are expected to be delivered this month. The following sites will be last to receive their basin files due to the complexity of the areas, and may not receive their basin files until May:

KBBX, Beale AFB, CA

KCBX, Boise, ID

KICX. Cedar City. UT

KEYX, Edwards AFB, CA

KESX, Las Vegas, NV

KVTX, Los Angeles, CA

KMAX, Medford, OR

KSFX, Pocatello-Idaho Falls, ID

KRGX, Reno, NV

KDAX, Sacramento, CA

KMTX, Salt Lake City, UT

KNKX, San Diego, CA

KMUX, San Francisco, CA

KHNX, San Joaquin Valley, CA

KSOX, Santa Ana Mountains, CA

KVBX, Vandenberg AFB, CA

KYUX, Yuma, AZ

Michael Mercer will send each office their basin CDs when ready. The CDs include instructions for installing the basins on AWIPS and for localization. Please note that operationally this means the FFMP application will not be activated in AWIPS 5.1.2 until the high resolution basin CD has been sent to the WFO and the files loaded on to AWIPS.

For information on which radar centric shapefiles have been sent, or which WFOs have their basin CDs, or for any other information related to the FFMP application please see the following Web site: <a href="http://205.156.54.206/om/flashflood/ffmpinfo.shtml">http://205.156.54.206/om/flashflood/ffmpinfo.shtml</a>

### SCIENTIFIC SERVICES DIVISION

<u>Western Region SOO/DOH Workshop</u>: Western Region Scientific Services Division will be hosting the Western Region SOO/DOH Workshop in Boulder, Colorado this year. The dates are May 14-16, 2002. The focus of the meeting is WES, IFPS, and the winter weather/high winds GPRA goals.

**SOO/DOH Professional Development and Training Report:** The due date for the semi-annual report is April 10, 2002.

Required COMET Numerical Weather Prediction (NWP) Module for all WR Forecasters - Completion by March 31, 2002: Forecasters can improve their forecasts by making more intelligent use of NWP model guidance. Numerical models are changing and it is important that forecasters keep up with model improvements. The COMET Program has recently released a set of NWS-sponsored training modules on NWP fundamentals. These Web-based modules are now organized as an on-line, distance learning course with the goal of providing forecasters a better understanding of numerical model fundamentals.

In completing the NWP Distance Learning Course, you can either choose to go through each element of each module (recommended for interns or others unfamiliar with NWP or those highly interested in the topic), or you may choose to go through the minimum path required for each module. The minimum path has been defined, with guidance from NWS personnel, as the core material experienced forecasters will find most beneficial in refreshing their understanding of NWP. The minimum required sections and pages are highlighted within each of the modules.

Upon completing the course, you will be asked to take a short on-line exam based on the example questions in the course modules. Successful (75% passing score) participants will be issued a certificate, and an email will be sent to the local office (SOO or MIC).

The modules build upon information presented in the previous modules. We recommend that you complete the modules in a short time frame, within 2-4 weeks, if possible. However, because the modules can be demanding, do not try to take more than one module per day. The total time to complete the course will likely fall between 10 and 16 hours.

Western Region is requiring successful completion of this course (a certificate) by all Western Region forecasters as part of their professional development and training activities. This includes all Forecast Office meteorologists and interns, CWSU

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meteorologists and the River Forecast Center HAS positions. **The due date is March 31**, **2002**.

The on-line Web course can be found at:

http://meted.ucar.edu/nwp/course

The Operational Models Matrix, an information resource on current model configurations, can be found at:

http://meted.ucar.edu/nwp/pcu2/index.htm

#### SYSTEMS OPERATIONS DIVISION

**Narrow Banding NOAA Weather Radio (NWR) Audio Links**: WFO San Diego will be upgrading their NWR UHF audio link to the required narrower 12.5 kHz bandwidth for transmission. All audio links need to meet this requirement by December 31, 2007. This is the fourth office in Western Region to be updated.

**AWIPS Version 5.1.2 Status**: All but one site in Western Region upgraded their AWIPS to version 5.1.2 by the end of February. The remaining site will be completed in mid-March.

**Security Awareness Training**: All Western Region National Weather Service and contractor personnel completed the annual NOAA IT security awareness training for 2002. Thanks for everyone's great job in completing the training by the February 28, 2002 deadline. Well done Western Region!

ASOS: Processor Upgrade, Dewpoint Replacement Sensor: The processor upgrade and dewpoint replacement sensor have been successfully installed at Boise, ID; Stanley, ID; and Campo, CA. The processor upgrade has been installed at Aurora, OR and the dewpoint replacement sensor will be installed this week.

A problem with the software that prevented installation at additional staffed ASOS sites has been identified and fixed. The problem occurred when observers edited the sky condition. The asterisk that was supposed to show up at the end of the edited element would instead float around the screen randomly. However, the software fix is still being tested to make sure the problem has been fixed without causing any other problems. A "go-ahead" to install at the remaining Western Region locations (Phoenix, AZ; San Francisco, CA; and Salt Lake City, UT) has not been given yet.

A different problem has been discovered when the dewpoint replacement sensor is installed on ports 3 or higher. Every time the system goes through a cold start, the dewpoint replacement sensor needs to be reconfigured. There is currently no available fix to this problem.

**RADAR: The Open Radar Product Generator (ORPG)**: Flagstaff, AZ is scheduled to have ORPG installed the week of March 11, 2002.

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Reusing cables for Build 1.2: The Radar Operations Center (ROC) requests that electronics technicians reuse existing RPGOP dial-out cables to implement the WSR-88D Engineering Change Proposal 158, Open RPG Software Build 1.2, and TCP/IP Serial Hardware For DOD. This will potentially save \$45,000.

<u>Passwords for Radar Operators</u>: The ROC requests that radar operators have access to the user names and passwords, so the ROC can assist forecast offices with radar problems after normal work hours. The ROC also requests the root passwords be shared so that there will always be someone on hand who can format an Archive III Jaz disk.

Archive III Procedures After ORPG Installation: Once your site has a WSR-88D Open System Radar Product Generator (Open RPG), send the Level III Jaz media to the National Climatic Data Center (NCDC) every 45 days, or when the media reaches 90% of capacity, whichever comes first. Also, provide an external label on the Jaz media sent to NCDC that states the site recording the data, and start date/time and end date/time of the Level III recording on that media.

Miramar Radar Solar Project: The 10 kilowatt photovoltaic solar power system is nearing completion at the Miramar radar site near San Diego. This joint project between NOAA, Department of Energy, and California Energy Commission is expected to provide approximately one-third of the radar's power needs when it becomes operational. Western Region is reviewing an agreement between the local utility and NWS to allow this new system to be connected to the power grid in southern California.

<u>Updated Electronics Technician Position Descriptions (PDs)</u>: Along with the other regions, Western Region is reviewing proposed updates to the GS-10 and 11 electronics technician PDs. The updated PDs are more generic in nature rather than focusing on one or two major systems. A new version of the ESA PD is also under review.

<u>Yuma Radar Transition Power Source (TPS)</u>: The Yuma radar site is expected to have its TPS up and running before the end of this week. Yuma is the last radar site in Western Region to get this uninterruptible power supply. The TPS provides much more stable and continuous power, which is expected to improve reliability of the radars.